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RELATING TO

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INSECTS, WORMS, ZOOPHYTES, &c.

THEIR HABITS, FOOD, RETREATS, OCCASIONAL APPEARANCE,
MIGRATIONS, NESTS AND YOUNG.

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By EDWARD NEWMAN, F.L.S., F.Z.S.

LATE PRESIDENT OF THE ENTOMOLOGICAL SOCIETY.

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Edward Newman, 9, Devonshire Street, Bishopsgate, London, N.E.

African Elephant at the Zoological Gardens.—The Zoological Society has been successful in negociating with the managers of the Jardin des Plantes at Paris an exchange of a rhinoceros for a young African elephant, the first, it is asserted, ever exhibited in this country—an assertion, by the way, that seems open to question. The striking differences between the two species are, *first*, the conformation of the forehead, so prominent and vaulted in the Asiatic species, so depressed and retreating in the African; *secondly*, the size of the ears, which are proportionately twice as large in the African as in the Asiatic: these discrepancies arrest the attention of the most superficial observer. When this little elephant is fed or noticed in any unusual manner, he moves his ears forwards almost at right angles with his head, when they have somewhat the appearance of the wings of a butterfly: a photograph of the animal in this attitude would be a great acquisition if he could be induced to remain quiet during the operations of the photographer.—*Edward Newman.*

The Dead Sea.—It is often said that no one is as black as he is painted, and I trust you will permit me to say a word on behalf of the Dead Sea. The name of "Dead Sea" is a modern, or rather mediæval epithet. To the ancients it was simply the "Salt Sea;" to the Arabs it is only "Lot's Sea" (*Bahr Lut*). My friend Mr. Grove, of Sydenham, in his able and exhaustive essay on the Salt Sea in Smith's 'Dictionary of the Bible,' has fully disproved the popular notion of its being a sea of death; and there is no man living who is more thoroughly master of every question of Palestine geography. During the past year I spent many weeks on the shores of the Dead Sea. I walked round a great portion of it, and examined every nook and cranny of the cliffs which enclose it. The climate is perfect and most delicious. At no place in the world could a sanatorium be established with such prospects of benefit as at Ain Jidy (Engedi). Baths hot and cold, salt and mineral, with luxurious shade, cascades and purling streams—everything but security for life and property is there. There are many spots near the sea where fresh-water streams flow throughout the year, and where sweet water bubbles up within a few feet of the salt shore. I may mention, besides Ain Jidy, Feshkhah, Terabeh, Um Bagkek, Callirhoe, the Arnon, and, above all, the Safieh, at the east side. Wherever these occur there is a prodigality of life, animal and vegetable, to the very shores of the sea. I collected 118 species of birds, several of them new to science, on the shores of the lake, or swimming or flying over its waters. The cane-brakes and oases which fringe it are the homes of about forty species of Mammalia, several of them animals never before brought to England; and innumerable tropical or semi-tropical plants, of Indian or African affinities, perfume the atmosphere. The rich plain of the Safieh is cultivated for indigo, maize and barley to within a few feet of the water's edge, and the date palm still waves over the mouth of the Arnon and the Zerka. The bitterness of the water of the lake itself is simply due to the saturation from the great salt mountain of Usdum at its southern extremity, and to the many hot sulphur springs which stud its shores. This saturation of salt and sulphur soon destroys the fresh-water fish which enter the sea in shoals, and supply food to the three species of kingfishers, the gulls, ducks and grebes, which may be seen and shot on all parts of the lake. Let not, therefore, the traveller be deterred from extending his investigations round the Dead Sea shores. He will find abundance of life to repay him if a naturalist, of varied scenery and wondrously painted skies and precipices if he is an artist, and night after night he may pitch his tent by springs of sweet water.—*—Rev. H. B. Tristram* (*Greatham Vicarage, July* 27, 1865) *in the 'Daily Telegraph.'*

BRITISH MUSEUM

Black Water Rat near Chichester.—On the 22nd of May last I shot a perfectly black specimen of the water rat (*Arvicola amphibia*): it was not quite full grown. It rather remarkable that on the 21st of May, 1863, I shot a full-grown specimen within a hundred yards of the place where the first-mentioned specimen was obtained, and I have seen one other on the same stream; so that we appear to have a black race of the water rat in this locality. Is not this unusual?—*W. Jeffery, jun.; Ratham, Chichester, July* 6, 1865.

Notes on the Quadrupeds of Lanarkshire.

By Edward R. Alston, Esq.

(Continued from page 9648).

Mole.—I have this summer succeeded in keeping a mole alive in confinement for nine days, and paid much attention to its habits during that time. I must begin by observing that there are certain small semi-circular areas outside the ground-floor windows of this house; these are about two feet deep, and being lined with stone form capital traps for small animals, which fall into them and cannot get out again. Into one of these hollows the mole must have fallen on the night of the 6th of July, in the course of the nightly rambles on the surface to which these animals are partial in summer. Next morning I was told of the prisoner, and found him running about at a quick pace with a serpentine sort of motion, turning his head from side to side, and trying in vain to burrow through the thick bed of gravel which forms the floor of the area. A few spadefuls of earth were then put in a corner, into which he speedily retired, and here he lived until the 15th of July.

This mole was a living confirmation of the character given to the species by former observers, of being the fiercest, boldest and most voracious of animals. At first I gave him a number of earthworms, which disappeared into the heap of soil and were never seen again. Before many hours had elapsed the mole found that there were no more worms to be had, and, coming out of the earth, wandered about seeking what it might devour. A very large frog (*Rana temporaria*, var. *Scotica*, Bell) was then put into the area, and a remarkable scene soon took place. The mole rushed at the frog, seized it by the hind leg, and tore at the muscles of the thigh with the greatest ferocity. The poor frog screamed piteously, and made several frantic leaps, dragging the mole after it, for the latter retained his gripe with all the pertinacity of a bull-dog. At last his hold gave way, and the frog continued to leap about, bleeding freely, while the mole seemed to be quite mad, turning rapidly round and round, and sniffing at the blood-stains on the gravel. Another similar attack then took place; but the scene now became too painful, and the poor frog was put out of pain by a blow on the head. The body, still moving convulsively, was thrown close to the murderer, who now appeared to be possessed of a devil; he literally *danced* round his victim, worrying and biting at the skin of the belly until he tore it open, when he feasted sumptuously on the entrails. He afterwards ate several smaller frogs, but refused to touch a small toad which was offered him one day; he smelled at it, but turned up his nose, as if in disdain.

After this the mole was fed principally on raw meat, dead birds, &c., and the quantity of food which he would eat in one day was astonishing, more than his own weight, I am sure. During the first three days he disposed of about three or four dozen earthworms, the large frog already mentioned, a quantity of raw beef, the body of one turkey-pout and part of a second, and one or two black slugs. If the piece of meat was not too large he often buried it, and this was always done in the same manner: he dragged the fragment to his heap of soil, then dived under ground at one side, turned himself, thrust out his head, and pulled down the food after him. When he fed above ground his attitude was strikingly unlike the usual representations of moles in books; his head was drawn back, his back arched and his hands or fore paws turned inwards and downwards to hold down the fragment, at which he tore with his little sharp teeth. Like the celebrated "fat boy" in 'Pickwick,' he sometimes fell asleep over his food, and woke with renewed appetite: generally, however, he retired under ground to sleep, coming out to feed every few hours. He was supplied with a vessel of water, sunk in the gravel, and drank frequently; sometimes he was seen to run through the water and splash about in it.

The sense of smell is generally stated to be very keen in this animal, but in the present specimen it did not seem to be well developed; he would often puzzle round a piece of meat for some time before finding it. It is said that moles press out the earthy contents of worms before eating them, but as mine always took them beneath the surface I cannot confirm the observation. The most amusing thing was to see him dive into the earth; first he grubbed a hole with his snout, then a few powerful strokes of his digging paws concealed the fore part of his body, and then his hind feet gave a kick in the air and disappeared. Such was his boldness that he would bite at a stick if held near him, and if touched behind he would turn fiercely round. When angry or alarmed his voice was a pretty loud and extremely shrill squeak, not unlike that of his relatives the bats and shrews.

He seemed in good health up to the afternoon of the 15th of July, on the morning of which day he ate sixteen white slugs, which had been caught for his benefit. In the evening he was observed to be gasping for breath and unable to run about, and soon after he expired. Dissection not affording any clue to the cause of death, I am inclined to attribute it to the want of proper protection from the heavy rains which fell about that time, and which saturated his little heap of earth. In a state of nature these animals probably burrow deep into the earth in wet weather. If any of your readers are inclined to keep a pet mole I would recommend them to protect it from the rain, and to give it plenty of raw meat and water, and an occasional supply of worms, snails, &c. To feed so voracious a little brute entirely on earthworms would be difficult, for as many as can be obtained in an hour's digging are disposed of at a single meal.

Diseases of Rats and Mice.—Mr. Gunn mentions a curious case of a rat suffering from some extraordinary skin disease (Zool. 9645); these animals seem to be very subject to such complaints, and especially to tumours, of which Mr. Buckland has met with very many cases ('Curiosities of Natural History,' first series). A few years ago (in the spring of 1860, I think) a skin disease was epidemic amongst the house mice in Glasgow, and was fatal in many cases; it attracted a good deal of attention at the time from a fear that it might be communicated to human beings. Last September I examined a wood mouse (*Mus sylvaticus*), which had a fatty tumour as large as a pea lying under the skin; and, three years ago, a friend of mine killed a mole in Germany with a large abcess on its back.

EDWARD R. ALSTON.

Stockbriggs, Lesmahagow, August 1, 1865.

Ornithological Notes from Lanarkshire.

By EDWARD R. ALSTON, Esq.

(Continued from page 9681.)

JULY, 1865.

Gray Wagtail.—On the 6th of July I observed a pair of gray wagtails sitting on a rail; they were springing into the air at flies and returning to the same perch again, exactly like the spotted flycatcher.

I have since noticed this habit several times, but do not recollect having remarked it before in any species of wagtail.

Sky Lark.—Several instances are on record of larks removing their eggs or young when the nest has been disturbed. On the 9th of July four young larks were found in a rudely scraped hollow in the ground near a bunch of rushes in which the original nest was placed. It had been flooded by the recent heavy rains, and the young birds must have been removed by the parents, for they were not able to move of themselves.

Cuckoo.—On the 9th of July we also found a meadow pipit's nest close to the young larks just mentioned. It contained three pipit's eggs and one cuckoo's; the latter differs from Yarrell's description of "pale reddish gray," being of a light greenish colour, spotted with dusky brown, the size 10½ lines in length by 8 lines in breadth. Although the embryo was quite formed it would not have been hatched for about another week, and according to Dr. Jenner's dates (as given by Yarrell) the young bird would not have been able to support itself until about the middle of September. The latest cuckoo's egg mentioned by Mr. Morris is one which was found by Colonel Montagu on the 26th of June. Last year I recorded finding a large mass of vegetable fibres in the stomach of a young cuckoo (Zool. 9282 and 9329); yesterday (July 31st) I examined another young specimen, whose gizzard contained the eggs and remains of insects, and *again* a small quantity of fibres similar to those found last year. I enclose examples of the various forms for you to examine.

Wood and Willow Wrens.—On the 10th of July I picked up a young male specimen of the wood wren, which had killed itself by flying against one of the windows; I find also that a young bird in my collection (killed last summer) belongs to the same species. It would therefore appear that it breeds regularly with us, although its nest has not yet been found here, and I am informed on excellent authority that it has been found sparingly in various parts of Lanarkshire, although nowhere plentiful. The willow wren is much more numerous; it bears the local names of "wheetie" and "wheybird," the latter of which Jamieson wrongly assigns (in his 'Scottish Dictionary') to the wood lark, a very rare bird in Scotland; he also suggests that "whey" is allied to the Islandic "heide," a wood, which appears rather a far-fetched idea; more probably the name is a corruption of "haybird," from its building amongst grass.

Peewit.—These birds commenced to flock together about the 17th of July, but are not yet assembled in large flocks.

Robin.—Last year there was a discussion in the 'Zoologist' as to whether robins retire from the neighbourhood of houses in summer. Here, at least, there can be no doubt of the fact. At this season they are mostly to be found in the depths of the woods, but even there they seem to lose none of their impudent familiarity; when lying in wait for wood pigeons I am daily visited by a family of robins, who appear to take a great interest in every movement. I can confirm Mr. H. Osborn, jun., in his remark that the redbreast swallows rowan-berries whole; they also dispatch blaeberries (or bilberries) in the same fashion.

Wood Pigeon.—The flocks of wood pigeons which I mentioned in May (Zool. 9573) arrived about the 27th of July, and have been feeding busily on the blaeberries ever since. One shot on the 29th of July had the crop fully distended with the curious seed-vessels of which I enclose a few examples. This bird showed a remarkable instance of muscular irritation; its head and neck were literally riddled with shot, and yet, after a few convulsive movements as it lay on the ground, it raised one of its feet to its head and scratched it gently, first on one side and then on the other; then a shudder ran over the body, and it lay motionless. [The seeds were those of Cerastium arvense.—*E. N.*]

EDWARD R. ALSTON.

Stockbriggs, Lesmahagow, August 1, 1865.

Ornithological Notes from North Yorkshire.

By JOHN RANSON, Esq.

Cuckoo.—The cuckoo was first heard at Linton on the 9th of April.

Swallow.—A pair of swallows that had for some years built in a cow-house were first seen on the 16th of April. They were the first that were seen, as far as I can ascertain.

Pied Wagtail.—These beautiful and useful little birds generally leave North Yorkshire at the latter end of September or beginning of November, and make their appearance the first week in March—a time when spring beans are generally sown: "Sow beans when the wagtail comes" is one of our pieces of "folk-lore." This winter (1864-5) they have never left us; several flocks have wintered in our village; they have dwelt among the sheep on the turnips, and appeared quite lively and gay. The shepherds tell me that they have chiefly fed on the wire-worm, which has been abundant among the turnips during the last year. The grub of the cockchaffer (*Scarabæus Melolontha*) has also been very abundant, and has done considerable damage to the potato crop, by eating into the tubers and spoiling the sample: in digging my garden this season I have dug hundreds up; my potatoes were quite disfigured by them.

Sand Martin.—Half a dozen of these summer visitants were seen hawking over the Yorkshire Ouse on the 9th of April.

Yellowhammer.—The "goldy" of the Yorkshire lads is a very late builder; I have frequently found the nest and eggs as late as October; last year I found a nest, with four eggs, the first week in September, and some years ago I found a nest, with young ones, the first week in October, in a hedge on the high moors of Yorkshire.

House Sparrow.—There is a peculiarity about the pairing of house sparrows that I have never seen in print. In our village it is the custom to buy sparrows; female birds were a halfpenny each and male birds a penny; so that all the males were destroyed that could be got. The sportsmen used, when the birds had paired, to shoot the male, and it was invariably the case that the female found another mate, who generally fell a prey to the gun; in this way I have known a female widowed seven times and seven times to supply herself with a mate before she would forsake the place so fatal to them.

Missel Thrush.—On the 8th of May I made a careful examination of the nest of a missel thrush; it was placed on the fork of an apple-tree, and owing, I think, to the frequent interruptions during the lambing season, the nest with four eggs was forsaken. A foundation of soft mud had been laid on the tree, and upon this the nest was built; the outer portion was composed of twigs of Scotch larch, interwoven with sheep's wool, and the whole was lined with blades of grass, neatly, compactly and smoothly laid; the wool nearest to the edge of the nest hung in large locks, and made the nest very conspicuous, but no portion of the wool was used in any other way than interwoven with the sticks that formed the outside of the nest. This bird seems to like a fringe hanging round the edge of the nest. A good housewife on the high moors hung her lace collar out to bleach and dry; when it was wanted it was gone, nor was it found until it was discovered interwoven with a missel thrush's nest. A young girl in our village also lost several yards of lace, some white silk ribbon and a worked collar, which had been hung on the garden-hedge and some gooseberry bushes to bleach; about a fortnight after a missel thrush's nest, taken in an orchard near to the garden, was brought to me; the lace, ribbon and collar were woven among the outer sticks, and hung in festoons about the nest, as the wool did in the first case. In both instances it was the fringe of wool and of lace and ribbon that made the nest so conspicuous.

JOHN RANSON.

York, June, 1865.

Ornithological Notes from North Lincolnshire.

By JOHN CORDEAUX, Esq.

(Continued from page 9663).

JUNE AND JULY, 1865.

Blackheaded Gull.—Were it not for these gulls June and July would be almost barren months in Humber Ornithology. Day after day I have carefully examined with my landscape-glass the dreary mud plains left exposed by the falling tide, and with the exception of blackheaded gulls, an occasional curlew or a small flock of dunlins, have not seen a trace of bird-life. The peewit gull is unquestionably the gull of the Humber, far surpassing in numbers any other species frequenting these shores. They are much more numerous, however, during the spring and autumn than in the winter months. During the last week in May and early in June these gulls will return to the marsh district adjoining the Humber, coming from their breeding-places on the inland meres. At first a few old birds make their appearance, these daily increase in number until they amount to considerable flocks; these flocks, however, consist entirely of old birds, and it is not till about the last week in June that the young gulls arrive; by the first week in July they attain their maximum. Any day in this month flocks containing several hundreds both of young and old birds may be seen in the marsh district. They invariably prefer a dry and level fallow field; here they will often continue all day, basking in the bright sunshine, day after day returning to the same spot, which in time, from the quantity of feathers scattered about and the slight inequalities of the surface made by the gulls, resembles the place frequented by a covey of partridges. The gulls always sit with their heads turned to the wind. In rainy weather, and at such times when the fallows are wet, they resort to the grass lands. It is a pretty sight to see a flock of these gulls thus nesting; their pure unsullied plumage and dark brown heads contrasting with the bright green herbage. From not being molested they are unusually tame, frequently permitting me, when on horseback, to approach within a short distance and inspect them. They are often seen, in company with rooks, following close to the heels of the ploughmen, to pick up the worms and grubs turned up with the fresh soil. Before rain and stormy weather they become much shyer, remaining for hours together on the wing, wheeling and screaming over the marshes, often ascending to a great height and as rapidly descending again and performing a variety of antics; often at such times leaving the marsh district and going far inland to the wolds. This wild play of the gulls is always a certain indication of rain, and I have frequently been able, from this sign alone, positively to predict a change in the weather; they are certainly most unfailing weather prophets. After July they do not resort much to the marshes, preferring the Humber and its muddy shores. Hundreds may now be daily seen on the flats. They will not leave the neighbourhood till late in the autumn, at which time the greater part move southward, some few only remaining with us throughout the winter.

Lapwing.—June 25. Many lapwings remain in the open marsh districts throughout the year, in the autumn receiving immense additions to their numbers, and except in severe frosts continuing in the neighbourhood during the winter months. They are eminently gregarious, and are seldom seen in pairs, except during the six or eight weeks of the breeding season. When the young birds can fly several families will unite together, forming small flocks containing twenty or thirty birds. By the middle of July these smaller flocks pack together, forming one great assembly, containing hundreds and often thousands of lapwings. On the 13th of July I put up one such flock from a piece of rough fallow land containing many hundreds of them, probably the collected broods of this district. In severe winter weather and towards spring these large flocks break up into subdivisions, and again in the latter season into pairs. Some of the young broods do not, however, get off before the end of July; probably in these cases the first nest has been destroyed, as is frequently the case in the cultivated districts, by some of the many processes of agriculture. Waiting the other day under a bank for the chance of a shot at some wood pigeons, I was attracted by the vociferous clamour of a lapwing, evidently extremely desirous for me to change my quarters: from the extreme solicitude of the poor bird I knew the young were not far off, and on looking round saw, almost within arm's length, a young peewit, rather more than half grown, crouched amongst the grass; on my touching it, it made no effort to escape, merely crouching closer to the ground; taking it in my hand it exhibited no alarm, only following with its bright dark eye the now frantic evolutions of the old bird. When set at liberty it ran off rapidly for a few yards, and then stopped and commenced feeding, totally regardless of my presence, picking up what I supposed were minute insects from the ground and from amongst the blades of grass. This tameness in a more than half-fledged bird was in striking contrast to the wild and wary conduct they usually exhibit on the approach of man.

Whimbrel.—These birds are this year unusually early in their return south. I observed several about the flats during the first week in July, and on the 14th a flock containing eight or nine birds.

Landrail.—On several occasions during the spring and summer I have been surprised to hear landrails calling in the low meadow lands bordering the stream in this parish. This is the first occasion that I have heard their call in this district, although it is no unusual circumstance, when shooting in the autumn, to flush them in the turnip-fields: we have at that season considerable arrivals of these birds on their passage southward. I do not know of any instance in which the nest has been found in the marsh district. I am so frequently hearing their well-known call during this summer, it is probable that this season may be an exception, and that some have bred in the neighbourhood.

JOHN CORDEAUX.

Great Cotes, Ulceby, Lincolnshire,
August 1, 1865.

Ornithological Notes from West Sussex.

By W. JEFFERY, jun., Esq.

(Continued from page 9602.)

MAY, 1865.

Arrival of Summer Migrants during the Month.—Turtle dove, on the 4th of May; nightjar, on the 6th; spotted flycatcher. on the 8th; swift, on the 13th; redbacked shrike, about the 16th. The last-named bird is extremely scarce this year—in fact, has been getting so for some years past.

Land Rail.—The land rail is very irregular in its appearance here in the spring, coming in greater numbers some years than others. This year they have not been numerous. The first I heard was on the 8th of May; this is later than usual. They breed sparingly every year in some of the uplands; but, so far as my experience goes, not near the coast; consequently I have not much opportunity of observing their habits.

Sand Martin.—Numerous from the 10th to the 19th of May, though they do not breed in this immediate neighbourhood.

Swift.—About thirty seen on the 13th of May: they appeared to be taking a northerly course.

Grallatores.—The migratory birds of this order have in general been scarce at Pagham Harbour during the spring migration this year. I have not seen or heard of a greenshank or bartailed godwit on this part of the coast, and very few gray plovers have appeared; I saw one on the 20th of May, apparently in full summer plumage, but too wild to allow me to get within shot of it. The dunlins had nearly all disappeared by the 13th. A knot, partly in the summer plumage, was shot, and one curlew seen, on the 13th. Flocks of from ten to thirty or forty whimbrels have remained about the coast throughout the May month. I was agreeably surprised in meeting with a pair of Kentish plovers at Pagham Harbour on the 20th: I am not aware that they have ever been detected here in the breeding season before, and very rarely at any other time of the year; I am satisfied, however, that I have made no mistake in identifying the bird, as I had a good view of one, at about one hundred yards, through my pocket telescope: their manners very much resembles those of the common species (Charadrius hiaticula) in the breeding season, showing signs of great uneasiness, as if they had eggs near at hand, whenever I was near their haunts. It is not improbable that there might have been more than one pair on the beach, as I saw them at both ends of the bed of shingle which divides the harbour from the main sea, and which is perhaps more than a mile in length. I hope to see more of these birds in the autumn.

Redthroated Diver.—I am much obliged to Captain Hadfield for his reply to my query respecting the changes in the plumage of this bird. I had already referred to Montagu, but my own observations had led me to think differently from him. Montagu does not state at what time during the winter of 1795 the specimen from which his description was taken was obtained: it might have been in October, before the moult would have been commenced. The three specimens which I mentioned (Zool. 9580), having the red patch, were all killed in Pagham Harbour: No. 1, on the 5th of May, 1860, in perfect summer plumage. No. 2, on the 23rd of October, 1862; in this specimen the red patch, as well as the slaty plumage of the neck, has white feathers intermixed: these two specimens are in my own collection. No. 3 I saw in the flesh on the 3rd of November, 1862; this bird had only a small patch of red, scarcely an inch in diameter, which, as well as the gray or slaty plumage, was much intermingled with white feathers. In the Chichester Museum I find another specimen in summer plumage, excepting some white feathers about the base of the bill; this bird, a female, was obtained at West Wittering on the 1st of November, 1862. Judging from these four examples, it would appear that if adult birds do lose the red patch in winter,—and this can scarcely be doubted after reading Mr. Blake-Knox's article (Zool. 9610),—the moult is commenced about the latter part of October, and that the summer plumage is fully regained by the first week in the following May, or perhaps earlier, thus giving a period of six months for the two moults. Is it not probable that the second change is merely a change of colour and not a moult?

Great Northern and Blackthroated Divers.—In answer to Mr. Blake-Knox's question (Zool. 9611), "Did any reader of the 'Zoologist' ever shoot a summer-plumaged bird in winter?" the adult female great northern diver recorded in the 'Zoologist' (Zool. 9449),—killed on the 6th of December, 1864,—was in perfect summer plumage, *with this exception*, nearly all the black at the upper part of the neck was much intermingled with white, giving it a gray appearance, the throat being almost white, and shading off to black near the rings which encircle the neck. There is also in the Chichester Museum an adult female blackthroated diver in about the same state of plumage; this specimen was obtained in the canal basin at Chichester, in December, 1836.

JUNE, 1865.

Swift.—On the 11th I saw about thirty swifts, and on the 25th counted more than fifty, at about eight o'clock in the evening, flying from east to west, in scattered parties of from half a dozen to twenty. I should imagine that there are at least twenty to thirty pairs breeding in the tower of Bosham Church this year, and the greater part of these have nests in such inaccessible places that they are not likely to be disturbed.

Little Stint.—I had two of these birds, male and female, sent from Pagham Harbour on the 16th of June, and I am told on good authority that a flock of about forty was seen at a large sheet of water near Chichester, where ballast has been dug by the South-Coast Railway Company, and now known as the "ballast hole." Two of these birds were shot on the 14th of June.

Gulls.—Saw a large flock of gulls in Chichester Harbour on the 10th of June; these were all immature birds; I should say principally great blackbacked and herring gulls.

Stormy Petrel.—One sent from Sidlesham on the 6th of June. This bird was obtained off Selsey Bill by a man who was out there for the purpose of hauling lobster-pots. This specimen was a male.

JULY, 1865.

Tawny Owl.—The young tawny owl taken on the 23rd of April has now (early in July) about attained its full plumage, having lost all the long downy feathers with which it was clothed. He is very fond of washing in a pan of water put into his cage for that purpose, and he very often drinks a little before commencing his ablutions. I have never heard this bird hoot.

Swift.—The town of Petworth seems to be rather favoured by this species. I was there for a few hours on the 8th of July, and I think I never saw so many swifts at once as I did then. The air appeared to be full of them. There certainly is no decrease in the number of swifts in West Sussex.

Stock Dove.—On the 15th of July I saw a bird of this species, which, together with several of the common ring dove (or "wood pigeon," as it is here called), had been recently killed in a field of peas.

Stone Curlew.—July 14. Had a young bird of this species brought me by a labourer who had caught it on the downs. It had not quite lost all its downy first plumage, and the primaries being very short it could not fly, so I turned it down in a walled-in garden, where it remained and did well for some time. One morning, however, on going to look for him, I found him drowned in a fountain-basin. He was very shy all the time that I had him, always squatting instead of running on my coming near him. He used to utter a whistling cry frequently in the morning and evening, but was quiet during the middle of the day.

Waders.—Some of these birds are again making their way for the south. I saw some whimbrels in Chichester Harbour on the 17th of July, and about the third week in the month curlews and redshanks were shot at Sidlesham: the latter bird is very numerous there, and I am told in large flocks.

Gulls.—On the 17th of July there was a pretty good number of gulls in Chichester Harbour. They seemed to be principally immature blackbacked gulls, herring gulls, &c., but amongst them I distinguished several adult great blackbacked gulls, also two blackheaded gulls; these latter *with* the black head.

W. JEFFERY, JUN.

Ratham, Chichester, August 7, 1865.

Ornithological Notes from the Isle of Wight.

By Capt. HENRY HADFIELD.

(Continued from p. 9610.)

MAY, 1865.

Cuckoo.—On the 13th of May, observing a cuckoo perched on one of the topmost branches of an almost leafless ash, on the border of a copse on the northern slope of the downs (one of their favourite haunts), I crept up, under cover of a clump of furze, till within sixty yards, and there carried on my observations for some minutes, during which the bird never changed its position, but continued preening its feathers, the large fan-like tail being bent to one side, so that the quills might be dressed. Then a wing would be raised, and the point brought forward to be preened likewise; but more frequently, with contracted throat, the feathers about the neck and breast were carefully cleansed and readjusted; but occasionally the song would be resumed. As it sat erect on the leafless bough, I was reminded of the passenger pigeon of North America. Though but an occasional note is heard when stationary, the cry of the cuckoo was incessant on first alighting, and so timid was it that the passing of a cow near the tree caused it to fly off, and it again took wing on a magpie flying by. On the wing it resembled a hawk, but when perched its likeness to a pigeon was still greater. It having suddenly disappeared among the under-wood, I entered on a path winding through the copse, and having stooped to uproot a *white* bluebell, I was surprised and almost startled on hearing a rustling noise among the hazels, as of some animal or person creeping through, soon followed by a kind of whirring and hissing sound above me; more astonished than ever, on looking up I saw a magnificent cuckoo perched on a budding oak only a few yards from me. Being screened by the foliage around, I observed that the preening was resumed and carried on as before, and its note renewed, which, being so near, had a peculiarly thrilling effect. I might have listened and gazed and listened again, had I not ventured to put on my hat, which at once scared it away. It appears that this careful preening is rendered necessary by the constant disordering and ruffling of the plumage in forcing its way through the cover and tangled brake when searching for grubs, or in pursuit of insects and moths. The cuckoo, having no family ties or cares, like other beaus, spends much of his time in dress, and is a showy, handsome bird, and perhaps second to none, if we consider the elegance of its form, as well as the beauty of its plumage. It would appear from Macgillivray and other writers that the cuckoo lays its eggs towards the latter end of May or beginning of June; but if this is its habit, they cannot be deposited until the *second* nesting of the titlark, as the first eggs of that species must be laid by the second or third week in April to have young fully fledged by the middle of May. By the bye, Temminck says of the titlark, "Habite les bruyères humides et les lieux marécageux proche des lacs et des fleuves. En Hollande."

Richard's Pipit.—Having early in the month observed a strange bird alight on a bank in the garden, approaching it cautiously I managed to get within a dozen yards, but could not make out the species, for though like a pipit it appeared a shorter bird, but with longer legs, and differing in colour from any pipit known to me; but on looking over Temminck's coloured lithographs I felt convinced of its being that rare bird, Richard's pipit that had been seen, and the description agrees with my observations, though I should call the white patch on the lower part of the throat gorget-shaped; this, together with its white temples and ear-coverts, and the elongated tarsus, is very remarkable. Macgillivray says nothing of the white crescent, but it is distinctly shown in the coloured engraving referred to, and is also indirectly pointed out by Temminck in the following description:—"La gorge, le ventre et l'abdomen, son d'un blanc *pur;* sur la poitrine qui est légèrement roussâtre, se dessine un large ceinturon de taches lancéolées." Macgillivray says, "the lower parts are *dull* white," and compares it to Anthus aquaticus. As Temminck remarks that its food is unknown, it may be as well just to state that during the few minutes that I observed it, it was feeding among the grass, and I saw it stretch out its neck to reach the groundsel, which was seemingly preferred to the other weeds and herbage.

Rook and Hooded Crow.—Your Lanarkshire correspondent, writing on the 11th of April, says (Zool. 9752), "Rooks have now eggs." Ours had young on the move by the end of the month, and there was rook-shooting near Shanklin on the 4th of May; but at Bonchurch, owing to the nests having been blown down early in the season, the young did not perch till a week later. Mr. Alston also remarks, "Here, as throughout Scotland, the rook is popularly known as the crow, * * * while the true hooded or gray crow is almost unknown." That it is not unfrequently met with in the north of Scotland, I must refer the writer to my Morayshire notes (Zool. 9174).

Herring Gull and Lesser Blackbacked Gull.—Having, as I purposed, revisited the Culver Cliffs on the 25th of May, the mingled and wild discordant notes of these gulls were heard in the distance, and on reaching the summit a flock of a hundred or more was seen on the water, massed together in circular order, a few hundred yards only from the shore, but individuals being in constant motion, though not rising above a few yards and then re-settling, it was difficult to distinguish them; but on their dispersing and spreading themselves on and over the cliffs, I could make out but the two species, the herring gull being in the proportion of ten to one; and their nests were pointed out to me by an old fowler, and in one, placed in an angle of a grassy ledge, I could observe an egg, and was told it contained two more, though concealed by the jutting rock, which I had no reason to doubt, having found the gull on its nest. I hear that they arrived early in the month, but comparatively few breed here now. The lesser blackbacked gulls were all in immature plumage: whether they breed in that state must be left for future observation or to others more conversant with their habits to determine, but I saw nothing of the nests.

Green Woodpecker.—In reply to the editorial query (Zool. 9608), I beg to say that I have no doubt whatever of the green woodpecker having been seen at Luccombe in a friend's plantation, and that, too, by more than one member of his family, who were questioned as to its size, colour, &c.; and, fearing mistake, I called again, taking Temminck's coloured engravings with me, when the green woodpecker was at once recognized and pointed out.*

Redwing.—My remark, "Very few have been observed," had reference to the under-cliff and the neighbourhood; that they have been seen in greater abundance elsewhere, as recorded, I have no reason to doubt. [See Zool. 9582 and 9602.]

[* My query on this point is one perhaps of greater moment than my correspondent supposes. Supposing a woodpecker to have been seen in the Isle of Wight, how did it get there? did it cross the sea? was it bred in the island, although the previous existence of the species unnoticed? was it taken over from the mainland and liberated? These suggestions are certainly improbable and far-fetched: the subject is worthy of careful investigation.—*Edward Newman.*]

JUNE, 1865.

Rook.—June 4. The young, being well nigh full grown and strong on the wing, are in the distance hardly distinguishable from the old birds, but on a nearer view are readily identified, the webs of the quills being as yet unruffled, the feathers around the beak unworn, and the bill black, whereas that of the adult is blanched and denuded of feathers, and the old rook is seldom seen after the breeding season without a gap in the wing, or the plumage disordered in some way, either in combat or by coming in contact with the branches when alighting in the nesting trees. It is rather amusing to watch the gigantic young pursuing the parent birds from tree to tree and from rock to rock, for they now frequent the sea-cliffs, but what they find among the rank grass I cannot discover, for though snails are in plenty I have yet to learn that that delicacy is eaten. The beak of the young rook, like that of the young starling, being too flexible and weak to penetrate the earth, they are incapable of providing for themselves for a considerable time after quitting the nest, though the instinctive faculty may not be wanting. The young of both species are alike possessed with an insatiable craving for food, for which they incessantly clamour.

Goldencrested Wren.—On the 5th of June the pendant nest of this, our most diminutive species, was pointed out to me by a neighbour: it is attached towards the extremity of a drooping branch of a small cedar, but concealed by an overhanging bough; it contains young of some days old, which were being fed in rapid succession by both male and female, at intervals of from two to three minutes. Thinking myself observed, I ventured within a dozen yards, when they no longer flew in and out in the same fearless way, for occasionally there was a pause of several minutes, and the opposite side of the tree would be entered, though in flying out they were less cautious. Though generally alighting on the nest-tree, standing apart from the rest, they would occasionally perch for a second or two in the ivy on a jutting rock above, and then, dropping down, creep to the nest; after feeding the young a slight movement of the foliage would be observed, when, creeping out like mice, they darted off. Their beaks were often crammed with food. It is not a very common species in the under-cliff, and their nests are rarely found.

Jackdaw.—June 6. The full-grown young of this species, as well as the adults, now frequent the trees at the foot of the inland cliffs to roost, and small parties are to be seen in the dusk of the evening wheeling round the cliffs and dropping among the branches, each arrival causing a momentary clamour, and as late as half-past 9 P. M. a subdued chattering note or call was heard.

Martin.—June 7. Observe that a pair of martins are building under the eaves of a neighbour's house: the walls of the nest being but half finished, it is of an inclined semi-cup-like form, dipping towards the centre. 13th. Though the nest is now well nigh finished, the aperture is as yet too wide, but is being expeditiously rounded off, the birds frequently going into the nest to carry on the work. There is a second nest under the same roof, though not quite so advanced, but a third on another building seems to be nearly, if not quite, finished. 14th. All the nests now appear perfect externally. Judging from the darker colour of the clay, about half an inch must have been added since yesterday to complete the walls of the second nest.

Blackbird.—A pair of blackbirds most unaccountably forsook their nest after the fourth egg had been laid; it was so well concealed, too, that no one knew of its whereabouts but myself; however, being so near the ground, the birds may have been alarmed by the cat. The four eggs point inwards and incline downwards. Though I have not observed that the eggs of the blackbird vary much in colour, no two artists seem to paint them alike. I have now three representations before me, not one of them correct: in the more recent work the egg is so thickly spotted and blotched with reddish and yellowish brown that little ground colour is to be seen, and that little is of a light greenish *yellow.* The florid style, even of our best artists, is much to be regretted. There is on the outside of the nest, at the base, a considerable quantity of clay, serving to fix it to the stems and roots of the ivy near the ground; its weight, with three eggs (one having burst by exposure to the sun) is six ounces and three-quarters. Embedded externally in the walls of the nest are a few stalks of weeds and the roots of divers plants, with which and coarse grass it is broadly and thickly margined. The lining is of a finer grass, resting on layers of a coarser kind, intermixed with leaves, moss, bits of silk and a feather or two, tending to prove that the blackbird is not over nice in the choice of materials. On the 16th of June the song of the blackbird was heard a little before 3 A. M.

White Wagtail.—June 7. Saw two light-coloured wagtails feeding among the decayed sea-weed, but supposing them to be immature young of the pied species I took no further notice of them; but on the 15th, when strolling along the cliffs, a grayish white wagtail suddenly alighted within three yards of me, its beak full of some material, proving it to be an adult, nor did it take wing till I moved. It was subsequently joined by the male, a darker and somewhat larger bird, though, from Temminck's remark, "Longueur 7 pouces," without, as usual, saying the *male*, it might be inferred that they are of the same size: he makes the length of this species the same as that of the pied wagtail, but we are told by another author that it is half an inch shorter. On the 29th I observed a pair in a meadow, following the cows and catching flies from under their noses: when their beaks were well crammed they flew over the cliff to feed their young. The female has but the crown of the head and nape black, the breast being grayish black, and the cheek and side-neck of a dull grayish white, as described by Temminck. That it is the Motacilla alba I have little doubt, but will endeavour to procure a specimen or two when they have done breeding.

Sky Lark.—June 23. Having watched a pair on the downs, I noticed that while the female collected the building materials the male bird kept guard, perched on the topmost twig of a furze, but invariably rising on wing with a low hovering flight to rejoin his mate. The yellowhammer, too, is rebuilding.

Wood Pigeon.—June 23. As usual at this season I found a number on the downs in pairs and small flocks, feeding on the whortleberries growing among the heather and furze.

Swift.—June 26. Between 4 and 5 P. M. I saw near Shanklin some forty or fifty swifts hawking at a moderate height. The evening was calm, dull and sultry; thermometer 70°. I never remember seeing them in such numbers in the island.

JULY, 1865.

Common Swan.—July 7. Though the plumage of a cygnet, on the Bonchurch Pond, now appears to be of a pure white, when the wings are raised a grayish brown tinge is observable on the back, and the bill is still of a dusky colour, but with a slight yellowish tinge and the gaple line black. Early in the spring the whole plumage had more or less of the gray and reddish brown colour, and there was but a slight frontal knob, nor is it yet fully developed, though the bird (a male, I believe) is now as large as its adult companion, and more powerful, frequently remaining with head immersed for thirty or forty seconds, whereas its mate does not keep under above half the time. Though Temminck remarks that it is not until "la troisième année" that "tout le plumage est d'un blanc pur," I am inclined to believe him mistaken, and Yarrell right in saying that "the gray colour is borne for the greater part of two years" only; that is, till the latter end of the second summer, though I doubt whether the bill will then be of the bright reddish orange colour of the adult. Temminck says the bill is *red.* Two young swans of this species were killed at one shot by an acquaintance of mine when flying over the Brading Marshes; the whole plumage being of a grayish brown and the bills dusky, tinged with yellow, they were doubtless birds of the season escaped from captivity.

Raven.—July 19. I find that a pair of ravens still breed in the cliffs near Luccombe. The young are now fully fledged.

Sand Martin.—This species is gradually moving to the eastward: I remember the time when there was a colony to the westward of Luccombe Chine; their next settlement was in the lofty sand cliffs nearer Shanklin, where they securely nestled till the holes were overwhelmed by a down-pouring of liquid mud, and the falling away of the cliff above raised a mound of such height as to make the nests accessible. The holes, though numerous, are within a narrow circle, shallow or choked with mud.

Bluethroated Warbler.—July 22. I am informed by one of the gardeners on the spot that the bird is still about the grounds, but, robin-like, lost its tail some weeks since, doubtless in fight, as it could not be moulting early in July. Though there have been reports of its breeding and the young having been seen, I have no faith in them, for it could hardly have escaped my notice or that of the gardener referred to; besides, if paired, it must be with the common robin.

Goldencrested Wren.—The young having flown I have carefully examined and measured the nest, and find the external diameter to be two inches and eight tenths; external width three inches and three-tenths; internal breadth one inch and six-tenths; internal depth about one inch and five-tenths. The nest was attached to and suspended from five slight twigs of the cedar, and at about eighteen inches from the extremity of the branch; it is somewhat flattened on one side by contact with the foliage, but not "resting on a branch," and the wall of the nest is there of less thickness, averaging but about half an inch, whereas the external front wall is an inch or more and well rounded. Some of the twigs are regularly built into the sides of the nest, leaves and all, and are, as well as the rest, securely bound round with woollen threads, but some are of such exceeding fineness as to be like gossamer; others appear as if several of these minute fibres had been woven together to make a stronger cord, which is securely fastened to the twig by being passed over the little knobs, but effectually preventing its slipping, the other end being built in and round the rim of the nest; but I am reversing the order in which it is done. Some of the finer threads spreading out, and branching off, have a web-like appearance where united to the branch. The nest externally is composed of fine moss and wool, with a few pieces or fragments of lichen, some cedar and other small leaves and stems, a feather or two, and a few minute blades of grass; the whole matted together with wool and cobwebs. The nest is pretty thickly lined with feathers, chiefly of one kind; they are, I believe, the neck or breast feathers of a fowl; some are two inches in length: they are laid round longitudinally, the shafts buried in the walls of the nest, the inner parts of the feathers towards the centre, rounding it off. I do not find "the moss cut small," as described by Macgillivray, though minute bits of moss and lichen are to be seen stuck here and there, but the pieces of moss forming the walls of the nest are of considerable size and placed in layers, the inner one, next the lining of feathers, having a considerable intermixture of the finest grass. The twigs having been removed, the weight of the nest in its present dry state is half an ounce and one scruple.

Martin.—July 23. This species observed to have young of some days old. 27th. Watched the martins feeding their young, now well nigh full grown; the heads of two could be distinctly seen as they watchfully sat at the opening, though occasionally beguiling themselves by pecking at the sides of the nest in a fidgety, restless way. Though fed in succession it was at irregular intervals. The wall, both below and on each side of the nest, has been thickly plastered with pellets of mud; my attention was first drawn to it by observing that the old birds frequently alighted on it or clung to it before settling on the side of the nest to feed their young: it extends right and left for some five or six inches, forming regular ledges.

Nightingale and Blackbird.—A nightingale, kept by a resident in this neighbourhood, lived for ten years. The same individual has caught, during the month, a young blackbird with a white tail tipped with black. No bird that I know of is more subject to these variations of colour, though the transition from black to white is common to many species, but whether permanently so I doubt; nor do I think it is transmitted to the progeny even of the first generation, or the pied varieties would be more common. I shall watch the moulting of this bird with some interest.

Willow Wren.—July 25. This species has reappeared, after an absence of some months; but they seem to be mostly birds of the season, and with little of the yellowish tinge about the plumage. I am not aware of their breeding in the neighbourhood, and believe they retire inland soon after their arrival in April. They generally congregate on this coast before their autumnal migration.

HENRY HADFIELD.

Ventnor, Isle of Wight, August 1, 1865.

Ornithological Ramble over Bodmin Moors to Dosmary Pool, &c.—I went out to Jamaica Inn on Monday last, the 10th instant, and had a long ramble on the moors. It was almost too late for the birds which breed there, and the great movement of curlews, sandpipers, &c., from their inland breeding-places to the sea-shore must take place about the 1st of July: of the former there was not a single bird where, ten days ago, there were several pairs; and the Fowey River was without any old sandpipers, and there was only one brood of young ones able to fly well and take care of themselves. The rushes by the river were alive with reed buntings, titlarks and sedge warblers. My setter pointed where snipes had been lately boring, and we then had an unsuccessful chase after a young dipper. We looked in vain for any traces of otters, which had been reported as doing much damage by killing the geese. Saw one pair of sand martins, and then turned up over the hill to Dosmary Pool, finding every stone fence with its pair of wheatears, and their young just able to fly. There was a flock of seven or eight sandpipers by the pool, and a brown bird among them, which when captured turned out to be a fully-grown young dunlin in very good plumage. Among the stones and shingle at the east end of the pool there was a pair of sandpipers, which appeared to have small young ones, one of which was discovered scuttling across the sand till it came to a tuft of rushes, where it squatted so closely that my dog had to be called to find it, and a queer little creature it looked, with great tags of down adhering to its tail and body: on being put into the water, it dived well, as young sandpipers are said to do. After this pretty little exhibition it was allowed to escape without further molestation. At this time I heard a whistle which was not unfamiliar, and a grayish looking bird rose rather wild: visions of every Tringa and Totanus in Yarrell passed before my eyes as an ounce of No. 8 went into its unlucky carcase; "*parturiunt montes*," it turned out to be nothing in the world but a poor old ringed plover, which, however, I never expected to find so far from sea-beaches. This finished Dosmary Pool, and we then turned down to the big marshes between the pool and Temple Moor, where there were signs of flappers in a marsh, which was too deep to get into. My setter found several dunlins, working them in the same way as he does a jack snipe among the turf-pits; they were perfectly tame, running about very quickly, and scarcely taking flight when I went after them; of course they were not shot at: all I saw were birds of the year. There were also plenty of snipes, old and young, in all stages of growth; they appeared to puzzle old "Don," and what with my not shooting at some, and others allowing themselves to be caught by hand, he evidently thought a snipe marsh in summer a slow game. We killed two full-grown young snipes, which rose together, flew for about a hundred yards with their legs hanging down and short tails, looking like small moorhens, and then allowed themselves to be caught by hand without making further attempt at escape.—*F. R. R.; Trebartha, July* 14, 1865. [Communicated by Mr. E. Hearle Rodd.]

A List of Birds noticed in London during 1863-64.

By F. D. Power, Esq.

(Communicated by J. Edmund Harting, Esq.)

It may appear surprising, but it is nevertheless true, that even in London a naturalist may find much to study and admire, and may observe, within a mile of the city, more than twenty species of birds in a state of nature. My friend Mr. F. D. Power has noticed no less than twenty-four species in one square only (that in which he resides), and I venture to communicate the following notes, which he has sent me, feeling sure they will prove of interest to ornithologists in the country, as well as to those who, residing in London, take a more particular interest in the birds of their own neighbourhood.—J. E. Harting.

The following account of the birds seen in London is from observations made by my brother and myself during the last two years, and I hope will prove interesting. Several, I am sure, are birds which one would not expect to meet with in the "Great Metropolis." There are twenty-four species in all.

Redwing.—I have frequently heard these birds flying over on moonlight nights at the time of migration, but never saw one, although my younger brother saw two flying about the trees in Queen Square on one foggy November day in 1863.

Blackbird.—My brother saw one of these birds in the bushes in Queen Square towards the end of 1863; it appeared very tame, and is the only specimen that we have seen.

Spotted Flycatcher.—Very common in the square, particularly towards the end of summer. These must be the old birds with their families, preparing to migrate.

Robin.—As this bird shows itself everywhere, we were not surprised to find it in Queen Square. There are generally one or two to be seen throughout the year.

Willow Wren.—I saw two in some bushes in the square in the summer of 1863, and heard them sing several times.

Goldencrested Wren.—One of these was seen in the square in the summer of 1863, but I think this is the only time that it has occurred.

Great Tit.—Rather common; we generally see several in the course of the year.

Blue Tit.—This is the commonest of the tits, and it may be heard in the square almost at any time throughout the year.

Cole Tit.—Very seldom seen. I think that three specimens are all that we have observed.

Gray Wagtail.—In October, 1863, my elder brother saw one of these birds running on the leads at the back of our house. As this is such a decidedly aquatic species he was not a little surprised to see it there.

Sky Lark.—In the winter months we have several times seen large flocks flying over at a good height.

Chaffinch.—Commonly seen, and its well-known "chink" is frequently to be heard in the square.

Sparrow.—Common, of course, though differing considerably from its country brethren in colour, some appearing quite black.

Starling.—Rather common. I have seen one feeding in the middle of the road round the square.

Rook.—Common. They build in Gray's Inn, and are often "cawing" in the trees behind our house.

Jackdaw.—Sometimes, but rarely, seen flying over the square.

Wren.—Only one or two of these birds have been seen, and they are not common.

Cuckoo.—In the summer of 1863 we saw a bird in the square, which we fancied must be a cuckoo, but could not be sure. However, last summer all doubt was set at rest, for during two or three days, about the time of migration, they were quite common. Two or three were in the trees in the square nearly a whole day.

Martin.—We saw two or three of these in the summer of 1863, but none since.

Sand Martin.—Seen in large flights about the time of migration.

Swift.—One specimen was seen in 1863. I think this is the only time we have remarked it.

Common Whitethroat.—One was seen by my brother in the square during the summer of 1864.

Linnet.—My brother saw two or three fly over the square in the winter.

Missel Thrush.—My brother saw one of these birds fly over the house and settle in one of the tall trees in the square each autumn.

F. D. Power.

Melopsittacus undulatus at large in Britain.—While on the cricket ground at the Oval, during the interesting match between Surrey and Nottingham, a grass parrokeet (*Melopsittacus undulatus*) flew directly over the play, and settled on one of the well-known willows which fringe parts of the ground. It reminded me of several instances that have come within my knowledge of this beautiful little bird being able to provide for itself in this, to it, antipodeal island: three specimens frequented the garden at Lincoln's Inn during an entire winter and summer of 1863-4, but disappeared during the winter of 1864-5. A pair survived the winter of 1864-5 in the little shrubbery known as the "Tower Ditch," but since the leaves have clothed the trees the little creatures have become invisible. That a goodly number should have escaped, seeing what multitudes have been imported during the last few years, does not seem extraordinary; but that they should have survived so many months, without the protecting care of a Waterton, is rather extraordinary. I am not aware whether it is generally known that these birds have a great *penchant* for oats, so that where horses are kept the grass parrokeet may be fed at a very small cost.—*Edward Newman.*

Sedge Warbler or Reed Wren at Twickenham.—On June 26th and 27th the sedge warbler (*Sylvia Phragmitis*)—or possibly the reed wren (*S. arundinacea*)—was heard and seen by me near Twickenham, in pleasure-grounds, about a quarter of a mile from the Thames, and with no other water nearer. The birds sang in lilac and other bushes all day long and late into the night, each remaining pretty much in the same spot all the time. There are no reeds or sedge, or anything but ordinary garden shrubs, in the grounds, which are situated many feet above the level of the river, on a dry gravelly soil. Having never before heard these warblers, except close to water, I am anxious to know if the instance which I mention is an uncommon one.—*Clermont; 6, Grosvenor Crescent, S. W., July* 1, 1865.

Greenfinch's Eggs in a Chaffinch's Nest.—I send you a notice of what I believe to be a very unusual circumstance. I found a chaffinch's nest yesterday containing six eggs—four chaffinch's and two greenfinch's (*Fringilla chloris*). I should be very much obliged if any of your readers could throw light on this fact.—*P. H. Jennings; Lilley Rectory, Luton, May* 13, 1865.

Note on the Swallow.—Macgillivray is certainly correct in contradicting the received notion respecting the swallow's mode of feeding. We are taught from our youth upwards that, rushing headlong through the air with distended jaws, they engulph all unhappy insects in their course. A few days after their arrival here I had a capital opportunity of judging for myself. A slight shower induced me to turn aside to the shelter of a large tree: the same cause brought down a group of ten swallows. Careless of my vicinity, the beautiful ariels passed and repassed before me over a space of a few square yards, at times approaching within a fathom of me; so close, indeed, that I could distinguish the details of their plumage. Not one flew with open mandibles or outstretched neck; on the contrary, the whole mien was so composed that they seemed to be merely taking "a constitutional." But every now and then a sweep to the right, a jerk to the left, a leap upward or a plunge downward, indicated the close pursuit of prey, and a rapid gape of the jaws its inevitable capture. I was intent upon their movements until they had hunted their way beyond range of observation so long and so closely that the inaccuracy of the common statement is an opinion which "fire will not burn out of me.'—*Charles W. Devis; Queen's Park, Manchester, June* 19, 1865.

Another Specimen of the Geeat Black Woodpecker expunged from our British Records.—With reference to the black woodpecker in the July number of the 'Zoologist' (Zool. 9626), Yarrell appears to be in error when he states that the black woodpecker is claimed by Sibbald as belonging to Scotland. The paragraph runs thus:—"Ex Picis Martiis, apud nos sunt, &c. Pici Martii rostrum habent rectum, &c. Digitos in pedibus binos ante et totidem retro. Insectis solis vescuntur: Picus viridis, Picus varius minor, Picus cinereus." Picis Martiis is evidently put for woodpeckers generally, and the only three species named are, the green, the small spotted and the cinereous (probably the nuthatch). A figure, however, of the black woodpecker occurs in a copy of Bewick's 'British Birds,' published in 1825, India proof, without letter-press.—*E. C. Buxton; Daresbury Hall, Warrington.*

Is the Great Black Woodpecker a British Bird?

By J. E. Harting, Esq., F.Z.S.

I observe in the 'Zoologist' for July (Zool. 9626) your inquiry for information relating to reputed British specimens of the great black woodpecker; and I beg to call your attention to the following instances of its occurrence, which you do not appear to have noticed.

In a 'Catalogue of the Birds of Dorsetshire,' by Dr. Richard Pulteney (London, 1799), the author states that the great black woodpecker (*Picus martius*) has been obtained in that county more than once, and refers particularly to one which was shot in a nursery-garden at Blandford, and to another which was killed at Whitchurch. His description is, "Body black; cap scarlet," and there appears, therefore, but little doubt that Picus martius is the bird referred to, particularly as both P. major and P. minor are separately and distinctly mentioned in the same Catalogue. We are to assume that the author had good grounds for making the statements above mentioned; in other words, that he had satisfied himself of the facts before inserting them in his Catalogue.

Colonel Montagu, in the Supplement to his 'Ornithological Dictionary,' after referring to the specimen stated to have been killed by Lord Stanley, and which now appears to be a mistake (Zool. 9626), continues, "We have heard that another was shot in the winter of 1805 on the trunk of an old willow tree in Battersea Fields." It is observable throughout the whole of his work that Colonel Montagu was not only an accurate observer himself, but was usually careful to sift and prove the correctness of reports furnished to him relating to the occurrence or capture of rare species.

I am not aware that the occurrence of the great black woodpecker in the Hampstead Woods has ever been noticed in print; but I am informed of the fact by the person who saw the bird, and who, being a taxidermist by profession, was well acquainted with the species, and not likely to be mistaken. Mr. Spencer, of Great Portland Street, having a brother who was keeper to Lord Mansfield, at Hampstead, had many opportunities of visiting and exploring the large woods called Caen Wood, Mutton Wood, Wild Wood and Bishop's Wood, and of observing, shooting and examining many of our rarer birds, whose shy habits conceal them from the general observer. Early one morning in May, 1845, whilst walking through the thickest part of Caen Wood, Mr. Spencer was suddenly startled to see a black woodpecker dart between the trees and alight upon an oak at some distance. It was extremely shy, and he was scarcely ever able to approach within a hundred yards of it. On the following morning he again visited the spot, on the chance of getting a shot at the bird, and again saw it; but it was too wary to allow of a sufficiently near approach. On the third day he was unavoidably prevented from visiting the wood; but on the morning of the fourth day he saw the bird again for the third and last time. My informant is still living in Great Portland Street, and able to vouch for the fact.

In the 'Zoologist' for 1862 (Zool. 8091) there appeared a note to the effect that the great black woodpecker had been found breeding in an oak tree in the New Forest. As the eggs are stated to have been obtained, there can surely be no doubt as to the species. I observe you have not referred to this instance in your note (Zool. 9626).

Although cases have occurred in which the great black woodpecker has been reported to have been seen or captured, and it afterwards appeared that some other bird had been mistaken for it,—probably Picus major,—it does not follow that this species has *never* occurred in England.

Looking at the form and anatomy of the bird, I see no reason why it should not cross the sea as easily as the wryneck or any other of the short-winged birds which visit us in summer. Standing upon an eminence, I have watched a green woodpecker, in full flight, cross a large valley in a very short space of time. The line of flight is undulating, like that of the wagtail, but at the same time rapid. I have also seen a great spotted woodpecker cross a few acres of open park in the same way, and from the power which these birds displayed I have no doubt their flight could have been sustained for a considerable distance. There seems to me, then, nothing wonderful in finding their congener, the great black woodpecker in England. But since it is decidedly not indigenous, nor yet a regular visitant, all records of its occurrence, to be of value and interest, should be thoroughly well authenticated.

J. EDMUND HARTING.

Kingsbury, Middlesex, July 23, 1865.

White Eggs of the Yellowhammer.—I enclose you a white specimen of the egg of the yellowhammer; the nest contained four eggs, all white. I could not have believed them to be the yellowhammer's eggs had the old bird not have been upon the nest: it is a very curious variety, and I send a specimen for your acceptance.—*George Mawson; Cockermouth, July* 7, 1865.

[This very curious variety of a common egg is most interesting: it has nothing either in shape or colour to indicate the species.—*Edward Newman.*]

Arrival of Summer Migrants near Norwich.—The following are the earliest arrival of summer migrants I have noticed this season in this locality:—

April 7th. Wryneck and nightingale.

April 8th Sedge warbler.

April 9th. Blackcap, a male of which I found floating near the bank of the stream at Old Lakenham, near Norwich. I took it from the water, and found its eyes and part of its head had been picked away, doubtless the victim of some hawk, which probably being disturbed had accidentally dropped it into the water whilst hurrying away. It was apparently only just dead, as it was quite warm when I obtained it.

April 10th. Cuckoo.

April 13th. Willow warblers and chiffchaffs appear more plentiful this season, whilst the swallows and martins have arrived in very small quantities at present. Sand martins arrived about the same period.

April 15th. Yellow wagtail.

April 16th. Lesser tern.

April 18th. Black tern.

April 20th. A male ring ouzel shot at Barford, near Norwich.

April 22nd. An adult female hoopoe shot in Mr. Read's garden at Plumstead, near Norwich.

April 26th. Shieldrake.—*T. E. Gunn; Norwich.*

Eggs of Pheasant and Partridge in the same Nest.—A friend of mine has just informed me that in taking a walk into the country, he observed his dog to point; on walking up to the spot, two partridges rose; he removed the grass away with his walking-stick, and was surprised to find nineteen partridge's and seven pheasant's eggs in the same nest. Is this not very unusual?—*George Mawson.*

[Three other instances, exactly similar, except in the number of eggs, have been communicated to me during the present summer.—*Edward Newman.*]

Malformed Egg of the Domestic Fowl.—I enclose you a curious malformed egg of the domestic fowl. I took it from the nest a couple of years ago.—*George Mawson.*

[This egg a good deal resembles in shape a jargonelle pear, but the pyriform figure is still more pronounced.—*Edward Newman.*]

Nidification and Incubation of the Emeu.—Mr. Bennett, in his interesting and detailed account of the breeding of the emeu in captivity, remarks (Zool. 8319), "thus definitely settling the question of sexes, the extraordinary reversal of habits and manners by which we had been misled, and the crowning fact of the *male* bird doing all the sitting." Mr. Bennett is, seemingly, unaware that this *fact*, namely, that it is to the *male* of this species that the duties of incubation belong, was long ago recorded by Nieremberg, and is thus referred to by Buffon in the year 1770:—"Nieremberg, conte des choses fort étranges au sujet de leur propagation; selon lui, c'est le mâle qui se charge de couver les œufs; pour cela, il fait en sorte de rassembler vingt ou trente femelles, afin qu'elles pondent dans un même nid; dès quelles ont pondu, il les chasse à grand coups de bec, et vient se poser sur leur œufs." But the *fact* of the *male* incubating was not credited, being, seemingly, too marvellous even for a Buffon, for he adds, "A l'egard de ce mâle qui se charge dit-on, de couver à l'exclusion des femelles, je serois fort porté à douter du fait, et comme peu avéré, et comme contraire à l'ordre de la nature."—*Henry Hadfield; Ventnor, Isle of Wight, June* 21, 1865.

[I think my correspondent misunderstands Mr. Bennett, who knows perfectly well how often the singular fact has been asserted and how often contradicted; indeed it has been a moot point ever since the first dawn of our knowledge of the emeu: Mr. Bennett thinks he has now settled the question, and I must say I agree with him. *Edward Newman.*]

Woodcock in July.—"On Friday last Mr. Cann, of Hiscott, in this parish (Tawstock), captured alive a fine woodcock, which weighed twelve ounces. The bird was sold to an ornithologist of Barnstaple, who placed it in his garden, where it still lives and thrives." The above paragraph was cut out of the 'North Devon Journal' of the 27th of July. I remember, a few summers since, some children caught a woodcock in a small copse close to Barnstaple, and this bird, like the one mentioned above, was in good condition and quite uninjured. It almost seems as if woodcocks occasionally became lethargic in the summer time, and permitted themselves to be caught without any attempt to fly, as on the occasion I refer to, and apparently also the recently captured bird noticed in the 'North Devon Journal.' I should be glad to know if any of the readers of the 'Zoologist' have come across woodcocks thus seemingly indifferent to their freedom.—*M. A. Mathew; Weston-super-Mare, August* 3, 1865.

Snipe in the middle of July.—There were a quantity of snipes for a few days on the peat moor between Highbridge and Wells, the middle of last month, after some heavy showers here had made places here and there rather splashy. A keeper on the moor, who shot a few of them, declared that they were all young birds; but I never place much reliance on keepers, for, as far as my experience goes, no set of men are more ignorant about birds. I was surprised to find Mr. Harting (Zool. 9667) giving any credence to a member of this class, especially on the matter of hawks, of which all keepers I have ever encountered are most supremely ignorant, recognizing, in general, but two species, *viz.*, "the kite," which includes everything larger than a peregrine, and "the little blue hawk," which means the peregrine, sparrowhawk, merlin and hobby. Indeed I doubt if half the keepers in the kingdom can tell a cuckoo from a hawk.—*Id.*

Bernicle Goose near Cockermouth.—During the hard frosts experienced here in January a friend of mine shot male and female bernicle geese, out of a flock of at least seventy that settled in the River Derwent, near Cockermouth. I obtained the two specimens, which are in splendid plumage, and had them preserved. I cannot learn, from even "the oldest inhabitant," of a single visit of this bird here before.—*George Mawson.*

Egyptian Goose at Barnstaple.—A small flock of Egyptian geese appeared on the Taw the last week in June. One killed by one of the river pilots was brought into Barnstaple for preservation.—*Murray A. Mathew; Weston-super-Mare, July* 7, 1865.

The Ivory Gull: Correction of an Error.—I regret that at Zool. 9566 I have recorded the occurrence of an Ivory Gull at Weston-super-Mare, because the bird I then referred to has been found not to belong to that species. I only had a hurried view of the bird the first time I saw it, and this was in rather a dark room, and the bird was already mounted and cased. Seeing a snow-white gull I concluded it could be nothing else than the ivory gull; but on a subsequent visit I was surprised to notice that it was without the black legs of that species, and was altogether a much larger bird. I am almost at a loss to what species to refer this singular capture. It corresponds most nearly, in the structure of bill, legs, &c., with a young great blackbacked gull, and may possibly be an albino, although, if it is, it is the first albino gull I ever came across. A large gull, snow-white *all over*, with legs and bill of a uniform green-tinged flesh-colour, is somewhat a nondescript, and I should be very glad to hear if any of the readers of the 'Zoologist' have ever met with a similar one, or could give me any light upon the matter.—*Id.*

Note on the Capture and Habits of the Smooth Snake.

By Dr. Blackmore.

Having been fortunate enough to catch two specimens of the comparatively little-known smooth snake (*Coluber lævis*), during a short visit to Bournemouth, I am anxious to record my experience of this pretty little snake; not, indeed, that any new fact has been elicited by me, but my observations tend to confirm those previously noted and recorded by others.

On the 10th of June, 1865, one of those scorching, cloudless days so frequently met with during this month, after strolling along the beach for about a mile beyond the flag-staff of the coast-guard station, I turned inland, and wandered up a beautiful little green gorge or miniature chine, down which trickled the water from a small tract of higher level marshy land, the rich verdure of which was charmingly relieved by a sprinkling of the feathery white cotton rush: here I was startled by coming unexpectedly upon a large adder basking on the damp grass. My friend was extremely polite, and made all haste to get out of the way, but almost instinctively my walking-stick was down upon him; a few additional taps rendered him quiescent, and he was soon tied up in my handkerchief and safely deposited in my pocket.

I had scarcely gone ten yards further when a moderately-sized common ringed snake (*C. natrix*) glided across my path, not very fast, however, and the reason was soon apparent — the snake looked *high-shouldered;* it had evidently just dined, and its dinner was only about four inches from its head. Knowing how easily snakes disgorge their prey, I just stopped it with my stick, and in half a second up came a fair-sized toad. Thus lightened of its burden the snake quickly disappeared; the toad also soon regained its presence of mind, sat up, held its head knowingly on one side, gave me a parting wink and crawled away. The usual diet of the ringed snake is the frog, but I have known them eat toads when kept in confinement, and the present case proves that they occasionally eat them in a state of nature.

My adventures were not yet over, for no sooner had I passed the marshy land and gained the sandy heath than I saw what I at first took to be a small dark-coloured adder basking on the short grass, and even after a second good look at it could not help thinking that it must be an adder; accordingly I gave it a slight blow with my stick, then held it down and carefully seized it immediately behind the head; it at once most obligingly opened its mouth, and I took out my pen-knife to raise the poison-fangs; strange to say, however, there was no poison-fang to raise, and the thought flashed through my mind, "This, then, is one of the new snakes;" and the closer I examined it the more pleased I felt, and more fully convinced that my conjecture was correct.

I have mentioned all these circumstances to show that, although each snake has its favourite haunt, yet in some localities examples of all three of our British Colubridæ may be caught within a radius of fifty yards. Of course I was now anxious to procure other specimens, and set to work and systematically hunted the surrounding heath; the result of a week's hunting was—two smooth snakes, and saw one other glide under a gorse-bush, but was too late to secure it; two adders; about seventeen common ringed snakes; three sand-lizards (*L. agilis*), and a very great number of the little viviparous lizard (*Z. vivipara*).

I found the common viviparous lizard more than usually abundant at the spot where the two smooth snakes were caught, and have no doubt but that this very circumstance determined the presence of the snakes in this particular locality.

My friends the smooth snakes, when first caught, hiss and bite freely, but soon release their hold; unlike the ringed snake they do not emit any disgusting secretion when irritated; their voice, if I may use the term, is a different tone, being softer and more feeble than either that of the adder or ringed snake; they are also far less shy and more easily tamed than the common snake. On the second day after the capture I procured three full-sized viviparous lizards, and placed them in the glass jar with the snake; it immediately became excited, and in a few minutes seized one of the lizards a little in front of the hind legs: the lizard was perfectly undaunted by this procedure and returned the compliment by turning and seizing with its mouth a small piece of the skin about the middle of the snake's body. The snake, after twisting in every direction, shifted its hold and bit the lizard across the middle of the body, and finally set to work at the head, gnawing it like a dog does a bone, but still, in spite of all this, the lizard held firmly on. This contest lasted for more than ten minutes, and then the snake seemed to consider it a bad job, and ceased biting the lizard, which, having gained a victory, soon let go its hold and ran away: the poor lizard had, however, suffered most in the conflict, and died the next day. The snake now turned its attention to another of the lizards, and this time seized it by the root of the tail, which, of course, came off, and was quickly swallowed; barely had the tip disappeared from sight before the snake suddenly caught the tailless lizard by the head, and, by the usual slow process, commenced gorging its prey, an operation that took exactly sixteen minutes by my watch. In the night, or early the next morning, the third lizard was eaten by the same snake.

My second capture is somewhat of an epicure, and at present has consumed more tails than lizards; it does not, however, confine itself entirely to tails. With regard to this same tail-eating propensity of the smooth snake, I may mention that three of the viviparous lizards which I caught had previously lost their tails, but in what manner is of course entirely open to conjecture.

The iridescence on the head of my specimens is very much less than that noticed by Mr. F. Buckland; indeed it is not more than exists on the darker markings of the adder in certain lights. There is a slight difference in the colour of my two snakes; the smaller and more slender one is rather darker, and has less brown under the chin; it is also more active and shy. I think this likely to be a male, and the one first caught a female; but how can I decide without dissection? Is there any well-marked difference in the form of certain of the scales, such as Mr. Jenyns has pointed out, in regard to the distinctive marks of the two sexes in the viviparous lizard? This is a point on which I should much like information.

HUMPHREY P. BLACKMORE.

Salisbury, July, 1865.

Notes on the Water Spider (Argyroneta aquatica).—It was while dredging for fresh-water shells, last spring, that I had the pleasure of making the acquaintance of this interesting creature. I had the net on the bank of the pond, and was examining the result of the last draught, when a large spider ran out of the ooze and wrack at the bottom of the net. Being engaged with the shells, I gave little heed to the spider until I came to put the *rejectamenta* back into the pond, which I make it a rule to do, when I observed the spider to run along the surface of the water for some distance, and then dive beneath it. This act (diving) showed me that it was no common spider, but that the creature I had so carelessly tossed back into the water was the real Aranea aquatica of Linneus, an animal for a sight of which many naturalists have longed. By slipping the net beneath the spot where it had dived I fortunately succeeded in recapturing it. It was a female, and had the usual reddish cephalothorax and legs, the abdomen being blackish, with hairs having a hoary appearance when the head of the creature is turned towards the observer. This one I lost owing to my having left the jar in which she was kept uncovered. A second dredging in the same pond resulted in the capture of more specimens, particularly a male and female: these two I placed together in the same vessel, which was the cylindrical body of a glass shade, five and a half inches high by four inches wide, to which a glass bottom was cemented by Canada balsam. A sprig of Potamogeton crispus was placed in the jar to oxygenate the water. The male almost immediately commenced to build a nest at the top of the plant, just beneath the surface of the water: it was about an inch in diameter, nearly globular, and of a transparent texture. From this air-filled lurking-place he would often issue to attack boat-flies, caddis-worms or the larvæ of dragon-flies, which I had put in to serve as food for the couple. Meanwhile the female was busily engaged in performing her nidifactory duties: her nest was built down at the bottom of the jar, was less than that of the male, and of a different shape, being higher and not so broad. Its chief peculiarity, however, was that the upper portion of it was made of white opaque threads, or perhaps of the ordinary threads so closely compacted as to be impervious to the light, the lower portion of it being transparent, like that of the male: this nest she filled with air, and, having frequent occasion to renew the supply, she spun a ladder of threads to facilitate her frequent journeyings to and from the surface; for the water spider, although of almost exclusively aquatic habits, is not a very dexterous swimmer, it being about as much as she can do to overcome the buoyancy of her air-clothed body. The air in the nest is constantly diminishing, owing to the breathing of the spider replacing the oxygen by carbonic acid, which is quickly absorbed and carried off by the water: this renders frequent replenishment necessary, to accomplish which the female creeps out at the bottom of the nest, and, after watching an instant to see that all is clear, she walks up the ladder until her fore feet touch the surface of the water: she then turns as if on a pivot, and thrusts the apex of her abdomen out of the water, with her two hind legs curved so as to bring the tarsi into contact with the abdomen a little below the apex (that is, *below* when the spider is in the position described), the one on the back and the other on the front of the abdominal region.

In this position she remains for a few seconds, and then suddenly gives a kick with the two hind legs, and you see her running down the ladder, a bubble of air enclosing her abdomen, which it usually resembles in size: the size of the bubble is, however, variable, and it is noticeable that when large the animal throws back and arches the two hind legs so as to inclose and protect it. Water spiders, even if without nests, frequently come to the surface of the water in order to breathe, or to change or replenish the supply of air which surrounds the body. In this latter case the apex of the abdomen is merely thrust out of the water, and after a time drawn back again, the coating of air being the same in quantity as before. The only difference in the method of obtaining the nest and that of the breathing supply, appears to me to consist in the kick given by the hind legs when a larger quantity of air is wanted than will naturally adhere to the body. The *rationale* of the process is, I think, as follows:—The body of the spider is clothed with a fine pubescence possessed of air-retaining properties. If by any means an additional quantity of air can be isolated and submerged it will, by the force of the attraction of cohesion, combine and adhere to that already surrounding the body of the animal. When the spider comes to the surface for this purpose, she thrusts the apex of the abdomen out of the water, thus causing a cavity or depression on the surface: this depression represents the bubble she wants, and only requires its connection with the air above cutting off to enable her to carry it down; this she effects by the sudden kick given by the hind legs, which, coming from opposite directions, cut off the connection by their scissor-like action. One peculiarity of the water spider, which I think deserves mention, is the whitish liquid sometimes projected into the water, and which falls slowly to the bottom in graceful festoons, resembling, more than anything else that I can call to mind, a faint trace of the nitrate of silver test in a weak chloride solution. I am sorry I cannot give the exact time of incubation, as I left home a little before the eggs were hatched, and when I returned I found the young spiders set up in life for themselves, each with its miniature air supply and nest. The female, at the close of the period of incubation, built for herself a nest like the male's, at the top of the jar.—*John Peers; Buttermarket Street, Warrington, August* 2, 1865.

Erratum.—Please to correct the following error in my last communication (Zool. 9698); line 11th, for "run" read "rest."—*Id.*

Notes on and Description of the Larva of Eupithecia plumbeolata, Haw.—Last summer, through the kindness of an entomological friend, I had the pleasure of inspecting a most beautifully executed collection of coloured drawings of various species of Geometra and their larvæ, the work of a continental entomologist, M. Carl Plotz. This gentleman figured the larva of Eupithecia plumbeolata, *Haw.*, feeding on the flowers of the purple cow-wheat (*Melampyrum arvense*). As M. pratense, another species of this genus, grows plentifully in those localities where E. plumbeolata is taken in this country, it occurred to myself and several other entomological friends that this plant might probably turn out to be the pabulum of this species, and we determined in the course of the present season to investigate the matter. I am happy to say that our investigations have proved successful and our suspicions correct. About the end of June I received eggs of E. plumbeolata from Mr. Barrett, of Haslemere, Mr. Hodgkinson, of Preston, and Mr. George Baker, of Derby. The parent moths were all taken flying over or amongst Melampyrum pratense, and had deposited their eggs on sprigs of this plant. The batch of ova sent me by Mr. Baker was the only one with which I had any success. From these eggs I was fortunate enough to rear seven or eight larvæ, which have now spun up and assumed the pupa state. I am happy to say that my friend Mr. Buckler, of Emsworth, has, with his usual skill, executed several most faithful drawings of this larva, and that he, Mr. Hellins, of Exeter, and Mr. Baker have taken the larva themselves on the flowers of M. pratense in the neighbourhoods of Emsworth, Exeter and Derby. The plant does not grow here, but Mr. Hellins has most kindly supplied me with fresh flowers by post every three days. I cannot sufficiently thank this gentleman and my friends Messrs. Buckler, Baker, Barrett and Hodgkinson for the trouble they have taken to assist me in making this most interesting discovery. I subjoin a description of the larva and pupa, which may possibly prove interesting to the readers of the 'Zoologist.'

DESCRIPTION OF LARVA AND PUPA.

Somewhat short and stumpy, in shape and general appearance resembling the larva of Eupithecia isogrammata, *Tr.* Ground colour pale, dull yellowish green. Central dorsal line broad, continuous dull purplish red, enlarged into a somewhat pear-shaped blotch on the centre of each segment. Subdorsal lines narrow, sinuous, dull purplish red. Spiracular lines yellowish, very faint. Spiracles blackish. Head yellowish, suffused with purplish red. Dorsal and subdorsal lines sometimes merged into one, leaving the whole back and sides suffused with purplish red. A few slender yellowish hairs sprinkled over the dorsal and lateral segments. Belly naked, pale, dull greenish yellow. Central ventral line wanting. Subventral lines narrow purplish red. Feeds on the flowers of Melampyrum pratense; when quite young on the stamens alone, afterwards on the whole corolla-tube. Full-fed from the middle of July to the middle of August. Reared from eggs laid by moths taken on Breadsall Moor, near Derby, by Mr. George Baker, 47, Kedleston Street, Derby. Pupa enclosed in a slight cocoon either in a dry corolla tube or on the surface of the earth. General colour golden yellow. Abdominal divisions and tip red.—*H. Harpur Crewe; The Rectory, Drayton-Beauchamp, Tring, July* 31, 1865.

Wasps and Fleas.—The number of female wasps in the spring appeared unusually great, leading to the expectation of an unusual number of nests. I have not seen one wasps' nest. There have been no wasps among the gooseberry-bushes, and none on the wall-fruit. I have frequented the garden for weeks together without seeing a single wasp. I mentioned this to a neighbour, some miles distant, whose garden and walls are extensive, and found that he also had experienced a like absence, almost total, of wasps, though he had noticed the numerous young queen wasps in spring. He added that he was under the impression that fleas were notably less numerous of late years than formerly. Having myself been under a like impression, and having spoken of it, independently of my friend's observation, I am inclined to think there may be truth in the remark.—*W. H. Wayne; Wenlock, August* 12, 1865.

Fireflies in Malayan India.—The Malays here and in many parts of the Archipelago have jewels made for night wear, set, not with pearls or stones, but with little round cages about the size of a pea, in each of which a firefly is imprisoned; the little insect, excited by the narrowness of its cage, gives out even more brilliant and more frequent flashes than when at large. The jewel could have no more pretty setting; it is also a very cheap and a very harmless one, as the firefly is set free before the night is over. I have read somewhere that these insects are impaled on little golden needles, as in the agonies of death they emit a more brilliant lustre. This must be a mistake, however, for I have found that the strength of the flashes they give out is in proportion to their vitality, and if this is in any way impaired, as by the loss of a leg or a wing, the bright flash becomes dull and often extinct. It is difficult to believe that the light of these insects is phosphorescent; it certainly has much more the appearance of electricity, for it is a sharp bright spark and not a dull lustre, and if not under the control of the animal is at least affected by its passions. If they are irritated, as by confinement, or if a branch of a bush on which they are clustered be roughly shaken, they will flash out much more rapidly and brilliantly than when enjoying themselves undisturbed.—*From John Cameron's work intituled* '*Our Tropical Possessions in Malayan India,*' p. 80.

Proceedings of Societies.

ENTOMOLOGICAL SOCIETY.

August 7, 1865.—F. P. PASCOE, Esq., President, in the chair.

Additions to the Library.

The following donations were announced, and thanks voted to the donors:—'Proceedings of the Royal Society,' Vol. xiv. Nos. 73—76; presented by the Society. 'Verhandlungen der Kaiserlich-Königlichen Zoologisch-botanischen Gesellschaft in Wien,' Vol. xiv.; by the Society. 'Annales de la Société Linnéenne de Lyon,' Nouvelle Serie, Tome x.; by the Society. 'Annales des Sciences Physique et d'Histoire Naturelle, d'Agriculture et d'Industrie, publiées par la Société Imperiale d'Agriculture, &c., de Lyon,' 3e Serie, Tome vii.; by the Society. 'Ueber einige Pflanzenverwüster,' 'Entomologische Fragmente,' 'Zoologische Miscellen,' by Georg Ritter von Frauenfeld; by the Author. 'Cecidomyia destructor, *Say*, Wezengallmücke oder Weizenverwüster,' 'Ueber eine bisher wenig beobachtete Getreidemotte Tinea pyrophagella, *Kllr.*; by Prof. Haberlandt; by the Author. 'Ueber Getreideverwüster;' by the Author, Gust. Ad. Künstler. 'The Zoologist' for August; by the Editor. 'The Entomologist's Monthly Magazine' for August; by the Editors.

The addition, by purchase, was also announced of C. G. Thomson's 'Skandinaviens Coleoptera,' Vol. 7, Part 1.

Election of Members.

The Rev. Joseph Greene and Messrs. H S. Gorham, H. Blake-Knox and Thomas Parry, were elected Members; and Mr. W. Rogers was elected an Annual Subscriber.

Exhibitions, &c.

Mr. M'Lachlan exhibited one living and numerous dead specimens of the ant-lion (*Myrmeleon formicarius*), together with the pupa-cases, and the larva and pupa in spirits; he had brought the larvæ from Fontainebleau in August, 1864, and fed them on house-flies; they remained torpid for about five months during the winter, and the perfect insects emerged at Forest Hill from the middle of July to the 5th of August.

Mr. W. Wilson Saunders exhibited a living specimen of a species of Locustidæ of a bright delicate green colour, of which he gave the following account:—About four months ago, Mr. Marshall, of Edmonton, gave him three small locustideous larvæ which were found in an Orchid-house, into which some Orchids from Mexico had been recently introduced; these larvæ were taken to Reigate and placed in an Orchid-house under a glass cover, but as they were very sluggish and appeared to be dying, Mr. Saunders' gardener proposed to allow them a little fresh air; the result was that all three escaped, and for three weeks nothing was seen of them. At the end of that time one of them was found eating the under side of the leaf of a Cymbidium; having been returned to its glass case, and again allowed to inhale fresh air, it again effected its escape, upwards of two months ago; four days before the Meeting the specimen exhibited was found, after it had completely spoilt a new Orchid (Cyanophyllum, *n. sp.*). It turned out that the creature was entirely nocturnal in its habits; by day it sat on a branch or leaf with its wings flat to the surface, the hind and middle legs hidden under the elytra, and the fore legs stretched straight out, with the antennæ between and beyond them; in this position it was with difficulty distinguished from the plant, and throughout the entire day it remained perfectly still, but at night was active and ate ravenously. The insect seemed to be remarkably fond of wiping or cleansing its feet and antennæ; and throughout its exhibition the process of gradually drawing the whole length of its antennæ through the palpi was carried on.

Mr. Bates thought the fact of a locust feeding by night was new, and nocturnal habits were the more remarkable in an insect of so bright a colour; he had met with upwards of fifty species in South America, but did not remember one that was nocturnal. The species exhibited belonged to the section of the group having the ovipositor curved upwards from the base and sabre-shaped (probably to the genus Steirodon), which suggested the question whether they laid their eggs from below, on the under side of leaves. It was well known that the males of this family possessed a drum-shaped organ on one wing-case, and a horny nervule like a file on the other wing-case, by means of which they were able to produce sound; there was one species which was collected by the natives of the Amazons and kept in cages for its musical qualities, as we keep canaries.

Prof. Westwood pointed out that the insect exhibited was not the locust of common parlance, but belonged to the Gryllidæ; he also explained that the sound-producing organ was a tambourine, rather than a drum; and he suggested that the specimen was East Indian, not American.

Mr. M'Lachlan mentioned that a small species of Gryllus (Meconema varia?) often paid nightly visits to the sugar of Lepidopterists.

The President said that he had requested further information from Mr. Odewahn respecting the mode of production of the sound emitted by the Australian Bolboceras which he had exhibited at the April Meeting (Zool. 9554); it appeared that the sound was caused by the rotation of the hind coxæ in the cotyloid cavity; striæ were visible on the dorsal surface of the coxæ, and similar but smaller striæ within the cavity.

Mr. Edward Saunders exhibited Trachys pygmæa, recently captured by sweeping in marshy ground near Folkestone.

Mr. D. Sharp exhibited Cryptocephalus 10-punctatus, and the black variety Bothnicus of Linnæus, from Rannoch; of the typical form he had found only the female, but of the black form both sexes.

Mr. D. Sharp also exhibited a number of the larvæ of Eros Aurora, from Rannoch; they were found gregariously amongst rotten pine-chips, and though not (he supposed) naturally carnivorous, they had whilst in his possession fed principally on the pupæ of other insects which happened to be in the same place of confinement; both larvæ and imago were very sluggish in their habits.

Prof. Westwood, on behalf of Mr. Wilson Armistead, of Virginia House, Leeds, read the following:—

"Located in the midst of a smoky town and district, chiefly noted for its manufacturing industry, I am desirous of obtaining the aid of my friends who are more favourably circumstanced, in elucidating a somewhat neglected portion of Nature's productions. I allude to those curious excrescences popularly known as Galls. These are caused by the punctures of insects, chiefly Cynips, and are found of various forms on the oak, the rose, the willow, the speedwell, and many other trees and plants, sometimes presenting a very dissimilar appearance on the same plant, according to the insect by whose enchanting wand they are, as if by magic, brought forth. It is matter of surprise that these 'little fairy palaces,' as they have been aptly called, so exceedingly varied and beautiful—some round as an apple, tinted like it, red and yellow; others like unripe currants; some resembling a honeycomb; some again miniature artichokes; some velvet cushions; some coral beads; and others tufts of moss—it is matter of surprise, I say, that these should have attracted apparently so little attention. They are, however, now claiming a greater share of notice. Two or more continental observers have published works specially relating to them, one on the Galls of Switzerland, by M. Berni, and another by Dr. Hammerschmidt, who has made the subject one of much research, giving drawings of 250 different kinds, and the insects producing them. A good deal has also been done during the last few years towards elucidating the American Galls. Count Osten-Sacken, the Russian Consul-General, has been a chief originator of some researches into them, followed up by Mr. Walsh, of Illinois, who has contributed valuable information respecting them to the Entomological Society of Philadelphia, published in their 'Proceedings.'

"Having myself been an observer of Galls and similar excrescences for twenty years or more, and having collected most of the British species, and some American ones during a visit to that country, I am preparing a volume to contain the result of these observations. This work will include drawings and descriptions, with some attempt at classification. *A coloured drawing of each* will be given where practicable, *and a description of every known Gall*, as far as my own observation extends, including those described by others, not omitting some similar excrescences known as pseudo- or semi-galls, whose production may be variously accounted for. An artist in London has been engaged to make drawings from specimens for the volume now proposed, and he has already produced some beautiful and faithful delineations. Being desirous of making the work as complete as possible, I shall esteem it a favour if any naturalist who may have observed or may possess any galls, wherever found, not hitherto known or described, would communicate with me, and furnish any particulars respecting them.

"I may add that I am in want of specimens to draw from of the leafy gall occurring on Genista tinctoria, of which I have description, but have not succeeded in meeting with it; also the cottony or woolly gall of the oak."

Mr. S. Stevens exhibited a collection of butterflies recently received from Mr. P. Bouchard from Santa Marta; and read a letter from that gentleman, dated the 30th of June, 1865, in which the writer stated that they were collected about 100 miles in the interior, in a valley about seventy miles west of the Snowy Mountains, and about the same distance from the Magdelena River; they had been brought from the interior on a mule's back; the writer had obtained very decent apartments in a house where the next neighbour was thirty miles off, was in good health and spirits, and had become used to the heat of the country.

Lieut. R. C. Beavan sent from Calcutta some exquisite drawings of the Tusseh silk-worm and moth, which were exhibited.

With reference to a statement in the 'Journal of the Society of Arts' of the 4th of August, 1865, that "the silk-worm culturists in France announce the birth or hatching of the larva of Bombyx Atlas; this gigantic moth has never before been seen alive in Europe," Mr. F. Moore mentioned that he had bred Bombyx Atlas in London more than a year ago."

Prof. Westwood had been informed that the Yamamai silk had entirely failed this year in Holland. He had recently reared some of the Ailanthus silk-worm, and found them sluggish in habit, feeding only at night; with the exception of young larvæ, less than half an inch long, he never found one to feed by day; when a moult took place, and immediately after it had escaped from the old skin—at a time therefore when any movement must be inconvenient to it—the larva invariably turned round and at once ate up the old skin; he had noticed that the skin was covered with a light powder, and this appeared to be the attraction to the larva.

Referring to Mr. Stone's communication, read at the previous Meeting (Zool. 9704), on the number and early appearance of wasps, Mr. Stainton remarked that though wasps were so numerous in the spring, there were scarcely any at the present time, when fruit was abundant and ripe; for some weeks past he had seen two wasps and two only.

Mr. W. W. Saunders corroborated Mr. Stainton as to the almost entire disappearance of wasps, whereas earwigs were more plentiful than ever.

Prof. Westwood had not seen a wasp for two months; he thought their absence was to be accounted for by the remarkably heavy rain-falls which had occurred on two or three occasions, in May, in June, and more recently, whereby the nests had been swamped.

Mr. Saunders replied that that explanation was not applicable to the neighbourhood of Reigate, where the rain-fall, taken month by month, was not so great as last year, when wasps were exceedingly abundant; and there had not been any single rain-fall of one inch, whereas in previous wasp-abounding years, as much as three inches had been registered at a single rain-fall.

Mr. Stainton observed, moreover, that a heavy rain-fall was local only, whilst the extinction of the wasps appeared to be general.

Mr. C. A. Wilson, Corresponding Member, of Adelaide, communicated the first portion of some "Notes on the Buprestidæ of South Australia," which was read.

Mr. Dunning exhibited a curious specimen of Fidonia piniaria, which he had captured on the 11th of June, 1850, in a pine wood at Farnley, near Huddersfield. It was well known that the sexes of this moth were very different in appearance, and were described by Linnæus as two species, the male as Phalæna piniaria, "alis fuscis, bimaculatis; antennis pectinatis," the female as Phalæna tiliaria, "alis ferrugineis; antennis setaceis;" the specimen exhibited was what a hybrid between piniaria and tiliaria might have been expected to be, if those forms had in fact been two species instead of the sexes of one. The specimen was sexually a female, and the abdomen was apparently distended with eggs; the general colour was midway between the colours of the ordinary male and female, but the size and the markings were those of the male. He had been puzzled to know how to describe it; he would not be without precedent if he called it a "hermaphrodite," or, adopting the nomenclature of Mr. Newman (Zool. for 1851, Appendix, p. cxl., where the distinct phenomena often confounded under the term hermaphrodite were classified), a "hemigynous" specimen. Mr. Dunning doubted, however, whether an union in the single individual of the *structural* differences between the sexes was not necessary to constitute hemigynism, or whether an individual which presented the structure of one sex throughout, but the colour and external markings of the other, was properly hemigynous; such an individual was abnormal, certainly, but were the superficial differences from the typical form anything more than skin-disease or cutaneous eruptions? The absence of any "addition to or alteration of a part or organ" prevented the application of a theory of "dimorphism" as recently enunciated by Mr. Pascoe; and the isolation of the case excluded alike the "polymorphism" and "local form" of Mr. A. R. Wallace (see Tr. Linn. Soc. xxv. 5, 10), and the theory of "mimetic resemblance" of Mr. Bates, to establish any of which a solitary example was insufficient, and a large number of instances—a more or less permanent race—was required. There seemed to be nothing left but to fall back upon the old term "variation;" at the same time the variation was not simple, casual, aimless, but in a definite direction, as if designed; it was the case of a female retaining essentially her sex, but having an unmistakeable bias or tendency to assume the garb and outward appearance of the male; he would exhibit the insect as Fidonia piniaria, an andromorphous variety of the female.

Mr. J. J. Weir suggested that "dichromatism," a "dichromatic variety," would denote the phenomenon in question.

Prof. Westwood hoped never again to have heard the word hermaphrodite applied to the abnormal forms under discussion; the best and only proper term was that given by Prof. Lacordaire, "gynandromorphous." He thought that, at all events some cases, where the differences were external only and not structural, were truly cases of gynandromorphism. For instance, he had an Orange-tip butterfly (*Anthocharis Cardamines*), which was female in every respect, except that on the tip of one fore wing were about a dozen of the bright orange scales which characterized the male; he regarded that specimen as possessing in itself the rudiments of two distinct creatures, a male and a female, and that the female influence had so far predominated as to have absorbed the male, except in that small portion of the wing where the male influence prevailed. With respect to variation generally, no attempt to classify the various forms and phases of it had yet been made; the subject was a wide one, but it would have to be dealt with, and in the hands of a Darwin might be made of surpassing interest and value.

Paper read.

Mr. J. S. Baly read a paper entitled "Descriptions of New Genera and Species of Phytophaga." Twenty species were described, five belonging to the Eumolpidæ, the remainder to the Galerucidæ; two new genera were characterized under the name of Hylaspes and Buphonida, both of the subfamily Gallerucinæ.—*J. W. D.*

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